

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

**WSOU INVESTMENTS, LLC D/B/A  
BRAZOS LICENSING AND  
DEVELOPMENT,**

**Plaintiff,**

**V.**

**DELL TECHNOLOGIES INC.,  
DELL INC., EMC CORPORATION,  
AND VMWARE, INC.,**

## Defendants.

CIVIL ACTION 6:20-CV-00480-ADA  
CIVIL ACTION 6:20-CV-00481-ADA  
CIVIL ACTION 6:20-CV-00485-ADA  
CIVIL ACTION 6:20-CV-00486-ADA

## PATENT CASE

## JURY TRIAL DEMANDED

## PLAINTIFF'S OPENING CLAIM CONSTRUCTION BRIEF

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Plaintiff WSOU Investments, LLC d/b/a Brazos License and Development (“WSOU”) submits the following opening claim construction brief.

**I. U.S. Patent No. 7,092,360 (Case No. 6:20-cv-00486-ADA)**

**A. Disputed terms for which Dell only seeks construction**

1. “said element comprises: an element for recording whether a queue is empty or occupied, an element for recording the [number of data cells/quantity of data] contained in a queue, an element identifying a queue from which data is to be output, and an element identifying a group of queues from which data is to be output” (claims 1, 26)

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“said element includes all of: an element for recording whether a queue is empty or occupied, an element for recording the quantity of data contained in a queue, an element identifying a queue from which data is to be output, and an element identifying a group of queues from which data is to be output”

Under the plain and ordinary meaning, use of the transitional term “comprises” signals that “said element” includes, but is not limited to, “an element for recording whether a queue is empty or occupied, an element for recording the [number of data cells / quantity of data] contained in a queue, an element identifying a queue from which data is to be output, and an element identifying a group of queues from which data is to be output.” *Dippin’ Dots, Inc. v. Mosey*, 476 F.3d 1337, 1343 (Fed. Cir. 2007).

While Dell appears to agree with this straightforward understanding of the transitional “comprises” term, Dell has yet to explain why it would be proper here to conflate together what the claims expressly differentiate. Claims 1 and 26 are expressly differentiated at least in that claim 1 recites “said element comprises . . . an element for recording the number of data cells contained in a queue,” while claim 26 recites “said element comprises . . . an element for recording the quantity of data contained in a queue.” Notwithstanding this explicit differentiation, Dell seeks to construe “the number of data cells” (recited in claim 1) to have the same meaning and scope as “the quantity of data” (recited in claim 26). This is presumptively incorrect. *See Comark Comm’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed.Cir.1998) (“There is presumed to be a

difference in meaning and scope when different words or phrases are used in separate claims.”); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (*en banc*) *cert. denied*, 546 U.S. 1170 (2006); (“Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.”) (citation omitted). The patentee’s word choice should control here; and no construction is required apart from plain and ordinary meaning.

2. “predetermined state for said element” (claim 1)
- “expected state for said element” (claims 3, 26, 29)
- “expected status for said element” (claim 12, 24)
- “expected state of said first element” (claim 13, 37)
- “expected value of said parameter” (claim 18)
- “expected states for that element” (claim 21)

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“a [state/value] for the [element/parameter] that would be expected if the scheduler is functioning properly” <sup>1</sup>

Dell does not purport to define *any* word recited in any of the above six phrases it identified for construction, apart from suggesting that “predetermined” and “expected” are interchangeable in meaning and scope. One of the six phrases Dell identified does not recite “*expected*” but rather recites “*predetermined* state for said element.” Dell suggests “expected” and “predetermined” are interchangeable in this context by offering a universal construction that employs, but does not purport to define, the same “expected” word for each of the above six phrases. Because the claims expressly differentiate between “expected” and “predetermined” (*e.g.*, claim 1 recites “a predetermined state” and claim 3, depending therefrom recites “an expected state”), Dell’s universal construction is presumptively incorrect. *Comark*, 156 F.3d at 1187.

Dell compounds its error by seeking to add an extraneous condition, “if the scheduler is functioning properly.” This would violate the proscription against adding a limitation that is neither required by claim terms nor unambiguously required by either the specification or the prosecution history. *See, e.g., Cont’l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 796–97 (Fed.

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<sup>1</sup> In overt violation of the Court’s order that the parties limit the terms offered for Court construction to a total of no more than *thirty-six* terms, Dell improperly groups together each of these *six* distinct terms as collectively providing only a *single* count.

Cir.), *cert. denied*, 140 S. Ct. 648 (2019); *Dayco Prods., Inc. v. Total Containment, Inc.*, 258 F.3d 1317, 1327 (Fed. Cir. 2001). The claim language in question is agnostic as to whether a given “expected” state or value indicates that the scheduler itself is functioning properly. While this *may* be what a given “expected” state or value *can possibly* indicate in certain embodiments, nothing in the claim language or the remainder of the intrinsic evidence compels importing this as a universal requirement for each of the six phrases Dell alone seeks to construe.<sup>2</sup>

The error of such an improper rewrite is underscored by comparing claims 1 and 3. Claim 1 recites, in part, “comparing the detected state with a predetermined state for said element and for outputting the result of the comparison.” Claim 3, which depends from claim 1, includes the requirement, “monitoring *a parameter relating to the operation of said scheduler*, and determining means for determining *an expected state* for said element based on said monitored parameter.” Dell’s construction would render superfluous at least the recitation in claim 3 that the “parameter” must “relat[e] to the operation of said scheduler.” This is because, according to Dell, the “expected” qualifier *itself* necessitates that the parameter relate to “the scheduler . . . functioning properly.” It is well established that “interpretations that render some portion of the claim language superfluous are disfavored” and presumptively incorrect. *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed. Cir. 2004).

### 3. “computer generated model” (claims 1, 18, 21, 26, 44, 45)

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“a simulated computer model of circuitry describing a scheduler”

The phrase “computer generated model” recites straightforward words that require no construction. It is, quite simply, a model generated by a computer. In identifying this term for

<sup>2</sup> Even if the ’360 patent specification disclosed only a single embodiment of “expected” states or values, which is not the case, the Federal Circuit has “expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Cont’l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir.), *cert. denied*, 140 S. Ct. 648, (2019) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) and citing *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)).



construction, Dell does not purport to *define* any of the recited words. Rather, Dell seeks to rewrite the phrase as “a simulated computer model of circuitry describing a scheduler.” Dell’s proposed construction should be rejected as violating the proscription against adding limitations that are neither required by claim terms nor unambiguously required by either the specification or the prosecution history. *See, e.g., Cont’l Circuits* 915 F.3d at 796–97; *Dayco*, 258 F.3d at 1327.

The specification proscribes importing Dell’s proposed construction as a claim limitation by stating, “[i]n any of the embodiments described above, the scheduler *may* be implemented as a simulated computer model of circuitry describing a scheduler.” ’360 patent, 12:11–13. Here, use of the word “may” confirms that the scheduler is *not necessarily* implemented as a similar computer model of circuitry describing a scheduler. Notwithstanding this language unmistakably signaling a *non-limiting* example, Dell commits the “cardinal sin” of importing this statement as a claim limitation. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005) (it is a cardinal sin of patent law to read a limitation from the specification into the claims).

It is also significant that certain claims direct limitations to the “computer generated model” including, for example, in terms of its content or structure. Claim 44, for example, recites “[a] method as claimed in claim 26, wherein said computer generated model comprises a file containing a functional description of said element.” As another example, claim 45 recites, “[a] method as claimed in claim 26, wherein said computer generated model is described in a programming language from which the scheduler can be synthesized.” These examples confirm that when the term “computer generated model” is to be interpreted as limiting in terms of content or structure, the claims specifically say so. For this additional reason, Dell’s improper rewrite of this term should be rejected as inconsistent with the intrinsic evidence.

**B. Dell errs in seeking to construe certain terms which recite “means for” as invoking means-plus-function construction under § 112, ¶ 6**

Dell errs in seeking a means-plus-function construction for three terms which are all expressly tied to a claimed “monitor” as the corresponding structure and therefore do not invoke pre-AIA 35 U.S.C. § 112, ¶ 6. Because the three “terms” at issue recite the word “means,” a

rebuttable presumption arises that the terms invoke means-plus-function construction. Nevertheless, “the presence of the word ‘means’ and the articulation of a function is not the end of the inquiry.” *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259–60 (Fed. Cir. 2008). “If, in addition to the word ‘means’ and the functional language, the claim recites sufficient structure for performing the described functions in their entirety, the presumption of § 112 ¶ 6 is overcome.” *Id.* In *TriMed*, for example, the Circuit found recitation of sufficiently definite structure by the recitation of a “means for” term in the context of functionality provided by “holes”—i.e., the claimed “holes” provided sufficiently definite structure for the “means for” term that followed. *Id.*

For each of the “means for” terms Dell identifies, its means-plus-function interpretation fails at the outset of the analysis because each term at issue is expressly recited in the context of a “monitor” having the claimed “means for” operation. For example, independent claim 24 recites “a monitor having means for detecting the state of at least one element of said scheduler.” Here, the claim language itself contains sufficiently definite structure by reciting the admittedly structural term “monitor” followed by an operation (“detecting the state of at least one element of said scheduler”) that the “monitor” must be configured to perform. *TriMed*, 514 F.3d at 1259–60.

Dell compounds its error in its application of a means-plus-function analysis. For example, Dell offers restatements of alleged functional language that departs from what is recited. Dell also errs in seeking to import into the claim structural limitations from the written description that are not unambiguously required to perform the alleged function. *Acromed Corp. v. Sofamor Danek Group*, 253 F.3d 1371, 1382 (Fed. Cir. 2001) (“a court may not import into the claim structural limitations from the written description that are unnecessary to perform the claimed function.”); *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999) (“The statute does not permit limitation of a means-plus-function claim by adopting a function different from that explicitly recited in the claim. Nor does the statute permit incorporation of structure from the written description beyond that necessary to perform the claimed function.”). If the Court is inclined to find the identified “means for” terms invoke § 112 ¶ 6, only WSOU has offered a viable construction (in the alternative to no construction).

4. “detection means for detecting a state of an element of said scheduler”  
(claims 1, 18)<sup>3</sup>

WSOU’s Position	Dell’s Position
<p>No construction required apart from finding this term is <b>not</b> subject to 35 U.S.C. § 112, ¶ 6.</p> <p>Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then,</p> <p><b>Function:</b> detecting a state of an element of said scheduler;</p> <p><b>Structure:</b> monitor having the claimed functionality.</p>	<p>This term is subject to 35 U.S.C. § 112, ¶ 6.</p> <p><b>Function:</b> detecting a state of an element</p> <p><b>Structure:</b> modules 110, 112, 114 . . . to 130 using a programming language interface (PLI) as described in ’360 patent, 12:11–41</p>

Independent claims 1 and 18 each recite the disputed phrase in the more fulsome context, “[a] **monitor** for monitoring the operation of a scheduler for controlling the departure of data cells, comprising *detection means for detecting a state of an element of said scheduler.*” In both instances, the “detection means” is expressly recited as being provided by the “monitor,” an *admittedly* structural term. The “detection means” expressly limits the “monitor” structure in terms of a specific operational requirement (i.e., detecting a state of an element of said scheduler). The “monitor” is further structurally described in terms of its interrelationship with a “scheduler.” Those *limiting, structural* terms are “essential to understanding the structural limitations” of the “detection means” at least because the “monitor” and “scheduler” are structurally linked to one another (i.e., “[a] monitor for monitoring the operation of a scheduler”) and provide antecedent basis for “*said scheduler.*” See *Shoes by Firebug LLC v. Stride Rite Children’s Grp., LLC*, 962 F.3d 1362, 1368 (Fed. Cir. 2020). Independent claim 24 recites “*a monitor having means for detecting the state of at least one element of said scheduler.*” Like claims 1 and 18, therefore,

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<sup>3</sup> Dell has taken the position that resolution of the dispute over the same phrase recited in claims 1 and 18 would somehow resolve *unraised* disputes concerning “means for requesting said scheduler model to pass the status of said element to said monitor” (claim 1) and “monitoring means for monitoring a parameter relating to the operation of said scheduler” (claim 3). In complying with the Court’s order that Dell limit the number of terms it seeks to construe, Dell opted to not identify those distinct phrases. Dell should not be permitted to creatively circumvent the Court’s order limiting the number of disputed terms by erroneously conflating into one multiple *distinct* terms, particularly where some of those distinct terms recited in the *same* claim 1.

claim 24 expressly ties its “means for detecting” term to the “monitor” structure and structurally interrelates the “monitor” and “scheduler” to one another.

The presumption arising from the word “means” is also rebutted by party admission. Dell admitted through counsel (during a telephonic meet and confer) that the specification discloses a “monitor” as structure corresponding to the “detecting a state of an element of said scheduler.” Moreover, the various “modules” Dell identifies as corresponding structure for this term are described in the ’360 patent as provided by an embodiment of monitor 107. *Id.*, 6:62–64 (“Referring to FIG. 2, the embodiment of the scheduler monitor includes a plurality of modules 110, 112, 114. . . to 130[.]”). Dell’s party admission that the disclosed monitor is *itself* corresponding structure is significant because the claim language at issue recites the “monitor” as *comprising* or *having* the claimed “detection means” and therefore operationally capable of performing the alleged functional language. It follows that the claim language *itself* admittedly recites sufficient corresponding structure to overcome the presumption that § 112, ¶ 6 applies. *See TriMed*, 514 F.3d at 1259–60; *see also Rodine PLC v. Seagate Tech., Inc.*, 174 F.3d 1294, 1302 (Fed. Cir. 1999) (instructing that if the claim recites sufficient structure or materials for performing the stated function, then the presumption that § 112, ¶ 6 applies is overcome).

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the *acknowledged* corresponding structure recited in the claim language itself, then the function and corresponding structure from the specification should be interpreted according to the alternative construction set forth in the table above. This alternative construction is intended to encompass at least the following exemplary embodiments of a “monitor” as claimed: monitors 7 and 107 (*e.g.*, 6:22–7:3); modules 110, 112, 114 . . . to 130 (*e.g.*, 6:50–7:28); rules 134 (*e.g.*, 6:33–37; 7:28–37); a rule checker (*e.g.*, 6:37–44; 7:28–48); a programming language interface (PLI) implementation of rules; (*e.g.*, 9:16–21, 9:57–63, 10:29–32, 11:9–12, 12:11–41); etc. This non-exhaustive list of exemplary disclosure encompasses various embodiments and, consequently, it is not offered as a comprehensive set of requirements which must all be met if the Court were to apply a means-plus-function construction.

Dell’s misapplication of a means-plus-function construction is itself erroneous in several respects. First, Dell’s identification of the alleged function omits the qualifier “*of said scheduler.*”

Second, Dell errs in seeking to unduly restrict the corresponding structure to a particular embodiment, and to the exclusion of all other embodiments, by purporting to require “modules 110, 112, 114 . . . to 130 using a programming language interface (PLI).” The ’360 patent is not so restrictive. That the PLI is not necessarily required for *all* embodiments is confirmed at least by the following exemplary description: “[i]f the monitor and scheduler are implemented using different programming languages, a programming language interface is required to enable the monitor to request the status of elements and parameters associated with the scheduler and to pass the request states and parameter values to the monitor.” ’360 patent, 7:58–63. Here, use of a conditional “if” statement expressly refutes the interpretation that a PLI is *always* required. Elsewhere, the ’360 patent confirms that certain embodiments may not require a PLI under any conditions. *See, e.g., id.*, 12:14–19 (“[T]he monitor system may [(and hence may not)] include a program language interface (PLI) to enable the monitor to detect the status and/or operations associated with elements of the scheduler module.”) (emphasis added).

**5. “comparing means for comparing the detected state with a predetermined state for said element and for outputting the result of the comparison” (claim 1)<sup>4</sup>**

WSOU’s Position	Dell’s Position
<p>No construction required apart from finding this term is <b><u>not</u></b> subject to 35 U.S.C. § 112, ¶ 6.</p> <p>Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then,</p>	<p>This term is subject to 35 U.S.C. § 112, ¶ 6.</p> <p><b>Function:</b> comparing the detected state with a predetermined state for said element and for outputting the result of the comparison</p>

<sup>4</sup> Dell asserts that resolution of the dispute over the “comparing means . . .” term recited in claim 1 would also resolve disputes that Dell opted to not raise before the Court concerning *distinct* terms recited in claims 18, 21, and 24. However, Dell opted to not identify those distinct phrases recited in other claims as requiring Court construction. Dell should not now be allowed to effectively circumvent the Board’s order limiting the total number of disputed terms by conflating those several distinct terms into one.

<p><b>Function:</b> comparing the detected state with a predetermined state for said element and for outputting the result of the comparison;</p> <p><b>Structure:</b> monitor having the claimed functionality.</p>	<p><b>Structure:</b> Indefinite</p>
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Dell seeks to challenge the above term as allegedly indefinite for lacking any corresponding structure. Dell’s challenge fails at the outset, however, because the claim language itself rebuts the presumption that 35 U.S.C. § 112, ¶ 6 applies. *See supra*, § I.B. Independent claim 1 recites the disputed phrase in the more fulsome context, “[a] monitor for monitoring the operation of a scheduler for controlling the departure of data cells, comprising . . . *comparing means for comparing the detected state with a predetermined state for said element and for outputting the result of the comparison.*” As with the other disputed “means for” terms, the “comparing means” is expressly tethered to the “monitor” structural term. For analogous reasons to those set forth above, therefore, the claim language *itself* recites sufficient corresponding structure to avoid application of § 112, ¶ 6. *Id.*

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the *acknowledged* corresponding structure recited in the claim language itself, then the function and corresponding structure from the specification should be interpreted according to the alternative construction set forth in the table above. This alternative construction is intended to encompass at least the following exemplary embodiments of a “monitor” as claimed: monitor 7 (*e.g.*, 4:32–40); monitor 107 (*e.g.*, 6:22–61; 8:38–41; 10:20–32; 11:38–41; 11:54–12:19; 12:42–52); rules 134 (*e.g.*, 6:33–37; 7:28–47); a rule checker 132 (*e.g.*, 6:37–44; 7:28–48; 8:41–43); etc. This non-exhaustive list of exemplary disclosure encompasses various embodiments and, consequently, it is not offered as a comprehensive set of requirements which must all be met if the Court were to apply a means-plus-function construction.

The burden rests with Dell to prove, by clear and convincing evidence, its untenable theory that the specification fails to disclose *any* corresponding structure. Dell has not and cannot meet its burden in view of the ample structural disclosure within the ’360 patent specification

concerning a “monitor” having the claimed operation.

**6. “determining means for determining an expected value of said parameter based on the detected state of said element” (claim 18)<sup>5</sup>**

<b>WSOU’s Position</b>	<b>Dell’s Position</b>
No construction required apart from finding this term is <b><u>not</u></b> subject to 35 U.S.C. § 112, ¶ 6. Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then, <b>Function:</b> determining an expected value of said parameter based on the detected state of said element. <b>Structure:</b> monitor having the claimed functionality.	This term is subject to 35 U.S.C. § 112, ¶ 6. <b>Function:</b> determining an expected value of said element. <b>Structure:</b> Indefinite

Dell seeks to challenge the above term as allegedly indefinite for lacking any corresponding structure. Dell’s challenge fails at the outset, however, because the claim language itself rebuts the presumption that 35 U.S.C. § 112, ¶ 6 applies. *See supra*, § I.B. Independent claim 18 recites the disputed phrase in the more fulsome context, “[a] monitor for monitoring the operation of a scheduler for controlling the departure of data cells, comprising . . . *determining means for determining an expected value of said parameter based on the detected state of said element.*” As with the other disputed “means for” terms, the “determining means” is expressly tethered to the “monitor” structural term. For analogous reasons to those set forth above, therefore, the claim language *itself* recites sufficient corresponding structure to avoid application of § 112, ¶ 6. *Id.*

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the *acknowledged* corresponding structure recited in the claim language itself, then the function should be “determining an expected value of said parameter based on the detected state of said element.” It is unclear why Dell’s identification of alleged function selectively excludes certain claim language included within, and specifically directed to, this term.

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<sup>5</sup> Dell asserts that resolution of the dispute over the “determining mean . . .” term recited in claim 18 would also resolve disputes that Dell opted to not raise before the Court concerning distinct terms recited in claims 3, 12 and 13. However, Dell opted to not identify those distinct phrases recited in other claims as requiring Court construction. Dell should not now be allowed to effectively circumvent the Board’s order limiting the total number of disputed terms by conflating those several distinct terms into one.



Specifically, Dell’s identification of alleged function seeks to strike out certain language as follows: “determining means for determining an expected value ~~of said parameter based on the detected state of~~ said element.” Dell’s rewrite would impermissibly change both *what* is being determined (i.e., “an expected value *of said parameter*”) and *how* it must be determined (i.e., at least “*based on the detected state of* said element”).

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the *acknowledged* corresponding structure recited in the claim language itself, then the function and corresponding structure from the specification should be interpreted according to the alternative construction set forth in the table above. This alternative construction is intended to encompass at least the following exemplary embodiments of a “monitor” as claimed: monitor 7 (*e.g.*, 4:32–40); monitor 107 (*e.g.*, 6:25–44; 9:34–10:32; 10:40–47; 10:58–11:12; 11:21–27; 11:38–41; 11:49–60; 12:20–53); rules (*e.g.*, 6:33–37; 9:15–21; 9:34–10:32; 10:58–11:12; 11:21–27); a rule checker 132 (*e.g.*, 6:37–44; 7:28–48; 9:21–26); etc. This non-exhaustive list of exemplary disclosure encompasses various embodiments and, consequently, it is not offered as a comprehensive set of requirements which must all be met if the Court were to apply a means-plus-function construction.

The burden rests with Dell to prove, by clear and convincing evidence, its untenable theory that the specification fails to disclose *any* corresponding structure. Dell has not and cannot meet its burden in view of the ample structural disclosure within the ’360 patent specification concerning a “monitor” having the claimed operation.

**C. Dell errs in seeking to construe certain terms which do not recite the word “means” as invoking means-plus-function construction under § 112, ¶ 6**

Dell also errs in seeking means-plus-function constructions of terms which do not recite the word “means” and therefore presumptively do not invoke § 112, ¶ 6. The presumption arising from the lack of the word “means” is underscored here by the fact that certain other disputed terms of the ’360 patent do recite “means for” limitations. *See Al-Site Corp. v. VSI Intern., Inc.*, 174 F.3d 1308, 1318–19 (Fed. Cir. 1999) (claim term “eyeglass hanger member for mounting a pair of



eyeglasses” with its absence of term “means for” was not a means-plus-function limitation, while claim term “means for securing” was a means-plus-function limitation). The Federal Circuit has articulated the § 112, ¶ 6 test in a negative as follows: “[t]o invoke [35 U.S.C.A. § 112, ¶ 6] the alleged means-plus-function claim element *must not* recite definite structure which performs the described function.” *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531 (Fed. Cir. 1996) (emphasis added).

**7. “element for recording whether a queue is empty or occupied” (claim 1)**

<b>WSOU’s Position</b>	<b>Dell’s Position</b>
No construction required apart from finding this term is <b>not</b> subject to 35 U.S.C. § 112, ¶ 6. Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then, <b>Function:</b> recording whether a queue is empty or occupied. <b>Structure:</b> scheduler having the claimed functionality.	Subject to 35 U.S.C. § 112, ¶ 6. <b>Function:</b> recording whether a queue is empty or occupied <b>Structure:</b> queue status register 165, 167, 201, or 203

Claim 1 recites the disputed phrase in the context of “an element *of said scheduler*, . . . said element comprises: an element for recording whether a queue is empty or occupied.” The “element” in question is recited as being part of the “scheduler”—i.e., part of sufficiently definite structure for performing the alleged functional language. *Id.* Accordingly, the presumption against application of means-plus-function construction stands.

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the *acknowledged* corresponding structure recited in the claim language itself, then the function and corresponding structure from the specification should be interpreted according to the alternative construction set forth in the table above. This alternative construction is intended to encompass at least the following exemplary embodiments: scheduler (*e.g.*, 5:4–7); queue status register (*e.g.*, registers 165, 167, 201, and/or 203, as described, for example, at 5:4–10 and 8:1–6); the buffer selection unit 175 (*e.g.*, 5:45–50); etc. This list of exemplary structure encompasses various embodiments and, consequently, it is not offered as a comprehensive set of

requirements which must all be met if the Court were to apply a means-plus-function construction. In addition, the parenthetical citations provided above are merely representative examples and are not intended to be exhaustive of all such examples.

Dell's proposed construction should be rejected under the first prong of the analysis because, under the circumstances, Dell will not be able to rebut the presumption against application of § 112, ¶ 6. Even in applying its erroneous means-plus-function construction, Dell compounds its error in taking a myopic view of the specification that overlooks relevant structural disclosure.

**D. Dell violates the Court's Order in seeking to construe additional terms in excess of the ordered limit of 36 total terms**

Dell has overtly attempted to circumvent the Court's Order limiting the total number of disputed terms offered for Court construction (across all four groupings of briefs) to no more than thirty-six terms.<sup>6</sup> For the four cases addressed in the instant brief, Dell improperly groups together certain *additional* terms, without counting any of them toward the total number of disputed terms offered for Court construction. Dell mistakenly believes these additional terms need not be individually counted merely because Dell has taken the position that each invokes § 112, ¶ 6, notwithstanding that the lack of the word "means." This of course ignores that each additional term would require *individual* consideration of (1) whether Dell has sufficiently rebutted the presumption against means-plus-function construction under § 112, ¶ 6, (2) the respective function, and (3) the respective corresponding structure in the specification. Indeed, that each of these additional terms would require individual and independent construction by the Court is confirmed by the fact that Dell purports to offer varying and unique constructions for each. Under such circumstances, these additional terms cannot fairly be considered as properly offered to the Court for construction. Nevertheless, out of an abundance of caution, WSOU submits that following counter-positions on the additional terms Dell identifies yet fails to count, in clear violation of the ordered limit.

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<sup>6</sup> See notes 1, 3–5, *supra*.

- i. “an element for recording the number of data cells contained in a queue” (claim 1, 20)
- ii. “an element for recording the number of cells contained in a queue” (claim 9, 30, 35, 38)
- iii. “an element for recording the quantity of data contained in a queue” (claim 26)

WSOU’s Position	Dell’s Position
<p>No construction required apart from finding this term is <b>not</b> subject to 35 U.S.C. § 112, ¶ 6.</p> <p>Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then,</p> <p><b>Function:</b> recording the [quantity of data / number of cells / number of data cells] contained in a queue;</p> <p><b>Structure:</b> scheduler having the claimed functionality.</p>	<p>Subject to 35 U.S.C. § 112, ¶ 6.</p> <p><b>Function:</b> recording the [quantity of data/number of data cells] contained in a queue</p> <p><b>Structure:</b> counter 169, 205, or 207.</p>

Setting aside that none of the above three *additional yet uncounted* terms are not properly before the Court, Dell errs in advancing a means-plus-function construction for each phrase. The presumption against application of means-plus-function construction under § 112, ¶ 6 stands un rebutted for each of these additional terms, for reasons analogous to those discussed above in addressing term no. 7 (“element for recording whether a queue is empty or occupied”). For example, claims 1, 9 and 26 each recite the disputed phrase in the context of “an element of *said scheduler*, . . . said element comprises: . . . an element for recording . . . .” In each instance, the “element” in question is recited as being part of the “scheduler”—i.e., part of sufficiently definite structure for performing the alleged functional language. Accordingly, the presumption against application of means-plus-function construction stands.

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the corresponding structure recited in the claim language itself, then the function and corresponding structure from the specification should be interpreted according to the alternative construction set forth in the table above. This alternative construction is intended to encompass at least exemplary embodiments of a scheduler that optionally includes one or counters (*e.g.*, 5:14–19; 8:9–11; 8:21–23).

iv. “an element identifying a queue from which data is to be output”  
(claims 1, 26)

WSOU’s Position	Dell’s Position
<p>No construction required apart from finding this term is <b>not</b> subject to 35 U.S.C. § 112, ¶ 6.</p> <p>Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then,</p> <p><b>Function:</b> identifying a queue from which data is to be output</p> <p><b>Structure:</b> scheduler having the claimed functionality.</p>	<p>Subject to 35 U.S.C. § 112, ¶ 6.</p> <p><b>Function:</b> identifying a queue from which data is to be output</p> <p><b>Structure:</b> pointer 177, 179, 181, 183, 209, 211, 213, or 215</p>

Setting aside that the above *additional* yet *uncounted* term is not properly before the Court, Dell errs in advancing a means-plus-function construction. The presumption against application of means-plus-function construction under § 112, ¶ 6 stands un rebutted for this additional term, for reasons analogous to those discussed in the immediately preceding section. For example, claims 1 and 26 each recite the disputed phrase in the context of “an element *of said scheduler*, . . . said element comprises: . . . an element identifying a queue from which data is to be output.” In each instance, the “element” in question is recited as being part of the “scheduler”—i.e., part of sufficiently definite structure for performing the alleged functional language. Accordingly, the presumption against application of means-plus-function construction stands.

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the corresponding structure recited in the claim language itself, then the function and corresponding structure from the specification should be interpreted according to the alternative construction set forth in the table above. This alternative construction is intended to encompass at least embodiments of a scheduler that optionally includes one or more pointers.

v. “an element identifying a group of queues from which data is to be output” (claims 1, 26)

WSOU’s Position	Dell’s Position
<p>No construction required apart from finding this term is <b>not</b> subject to 35 U.S.C. § 112, ¶ 6.</p>	<p>Subject to 35 U.S.C. § 112, ¶ 6.</p> <p><b>Function:</b> [identifying/indicating] a group of queues, from which data is to be output</p>

<p>Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then,</p> <p><b>Function:</b> identifying a queue from which data is to be output</p> <p><b>Structure:</b> scheduler having the claimed functionality.</p>	<p><b>Construction:</b> [identifying/indicating] a group of queues, i.e., high or low priority, from which data is to be output</p> <p><b>Structure:</b> Indefinite</p>
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Setting aside that the above *additional yet uncounted* term is properly before the Court, Dell errs in advancing a means-plus-function construction and then arguing that the term is indefinite as allegedly lacking any corresponding structure. The presumption against application of means-plus-function construction under § 112, ¶ 6 stands un rebutted for this additional term, for reasons analogous to those discussed above. For example, claims 1 and 26 each recite the disputed phrase in the context of “an element *of said scheduler*, . . . said element comprises: . . . an element identifying a group of queues from which data is to be output.” In each instance, the “element” in question is recited as being part of the “scheduler”—i.e., part of sufficiently definite structure for performing the alleged functional language. Accordingly, the presumption against application of means-plus-function construction stands.

If the Court is inclined to find that the disputed phrase invokes 35 U.S.C. § 112, ¶ 6, notwithstanding the corresponding structure recited in the claim language itself, then the function and corresponding structure from the specification should be interpreted according to the alternative construction set forth in the table above. This alternative construction is intended to encompass at least the following structural disclosure directed to exemplary embodiments directed to a scheduler as claimed: the embodiments described with reference to Fig. 3A including, for example, its grouping of queues according to high and low priorities; queue status register (*e.g.*, as described at 8:1–6); priority selectors; counters; current and next pointers identifying a group of queues from which data is to be output; etc. This identification of exemplary structure encompasses various embodiments and, consequently, it is not offered as a comprehensive set of requirements which must all be met if the Court were to apply a means-plus-function construction.

Even if Dell had properly preserved its indefiniteness challenge by submitting this term as one of the thirty-six total terms allowed by the Court’s order, and it did not, the burden would still rest with Dell to prove, by clear and convincing evidence, its untenable theory that the presumption against application of means-plus-function is overcome and the specification fails to disclose *any* corresponding structure.

## II. U.S. Patent No. 7,539,133 (Case No. 6:20-cv-00480-ADA)

### 1. “whether a congestion condition exists [on/for] the egress node” (claims 1, 12, and 13)

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“whether the egress node is currently congested”

The above phrase recites straightforward words that do not require Court construction. What Dell disguises as a proposed construction is in fact an attempt to commit the “cardinal sin” of importing limitations from an example embodiment of the specification. *Phillips*, 415 F.3d at 1320 (it is a cardinal sin of patent law to read a limitation from the specification into the claims). That Dell’s construction is not unambiguously required by the intrinsic evidence is confirmed by the statement, “*in one embodiment*, the egress node congestion status provides an indication as to whether the egress node currently has a congestion condition (i.e., whether the egress node is currently congested).” ’133 patent, 5:20–23 (emphasis added). This is the only instance in the entire specification where the word “currently” is used. Even if this had been the *only* disclosed embodiment, and it is not, the Federal Circuit has “expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Cont’l Circuits*, 915 F.3d at 797 (citations omitted).

### 2. “processing the packets” (claims 1, 12, and 13)

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“modifying, at the ingress node, the queuing priority of packets destined for the egress node”

The phrase “processing the packets” requires no construction, particularly in the respective contexts in which it is recited. As recited in claim 1, for example, the phrase is recited in the more fulsome context, “processing the packets such that packets associated with egress nodes for which the congestion condition does not exist have a different queuing priority within the load-balancing network than packets associated with egress nodes for which the congestion condition exists.” The “such that” clause (which Dell separately identifies for construction) provides sufficient context for the “processing the packets” term, such that there is no need to depart from what is expressly recited.

Dell errs in seeking to add limitations concerning where the “processing” must take place—i.e., “at the ingress node.” Claim 1 (written in method form) is agnostic as to whether the “processing” is performed by an “ingress node” in particular. It would be erroneous, therefore, to newly add such a universal requirement for all instances in which the phrase “processing the packets” is recited. *See, e.g., Cont’l Circuits* 915 F.3d at 796–97; *Dayco*, 258 F.3d at 1327. Indeed, Dell’s construction for “processing the packets” (recited in claims 1, 12, and 13) is internally inconsistent with its separate construction for “means for processing the packets” (recited in claim 12). For “processing the packets,” Dell seeks to add the requirement that the processing must be performed “at the ingress node.” In addressing “means for processing the packets,” however, Dell inconsistently argues that an “ingress node” is not itself required as corresponding structure. Dell’s inconsistency only underscores the error in its proposed constructions for these terms.

Dell also errs in seeking to rewrite the claim language as requiring a *modification* of queuing priority. This too would violate the proscription against adding limitations that are neither required by claim terms nor unambiguously required by either the specification or the prosecution history. *See, e.g., Cont’l Circuits* 915 F.3d at 796–97; *Dayco*, 258 F.3d at 1327. As recited in independent claim 1, for example, the “processing” need simply be effected “such that packets associated with egress nodes for which the congestion condition does not exist **have a different queuing priority** within the load-balancing network than packets associated with egress nodes for which the congestion condition exists.” This expresses a *relative difference* in queuing priority

between “nodes for which the congestion condition does not exist” and “nodes for which the congestion condition exists.” The claim language does not, however, expressly require a *modification* of a given queuing priority. Nothing in the remainder of the intrinsic evidence unambiguously requires Dell’s impermissible attempt to import a *modification* limitation.

**3. “such that packets associated with egress nodes for which the congestion condition does not exist have a different queuing priority within the load balancing network than packets associated with egress nodes for which the congestion condition exists” claims 1, 12, and 13)**

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“packets are marked depending on whether they are destined for a congested egress node, such that marked packets have a different probability of being dropped”

The above disputed phrase recites straightforward words that require no construction in this context. As discussed above (at § II.2), the “such that” clause plainly expresses a *relative difference* in queuing priority between “nodes for which the congestion condition does not exist” and “nodes for which the congestion condition exists.” Under the circumstances, no construction is required.

Dell does not offer a definition for any of the words recited in the disputed phrase and, instead, impermissibly seeks to rewrite the phrase to newly require unrecited concepts—*e.g.*, *marking packets* and *conditionally dropping packets*. Dell’s proposed construction should be rejected as violating the proscription against adding limitations that are neither required by claim terms nor unambiguously required by either the specification or the prosecution history. *See, e.g.*, *Cont’l Circuits* 915 F.3d at 796–97; *Dayco*, 258 F.3d at 1327.

None of the independent claims 1, 12, and 13 expressly require those extraneous limitations. Far from unambiguously requiring the extraneous limitations Dell seeks to add, the specification refutes such a construction by describing those concepts as optional aspects of certain alternative embodiments. *See, e.g.*, ’133 patent, 5:6–10 (“In one embodiment, the determination as to whether to modify the queuing priority of a packet is determined using an egress node congestion status associated with the egress node through which the packet is assigned to leave



the load-balancing network.”); 5:33–38 (“In another such embodiment, processor 210 may process the packet in a manner for modifying a queuing priority associated with the packet (e.g., marking the packet as having a particular queuing priority).”) (emphasis added).

Dell’s impermissible rewrite should also be rejected as violating the doctrine of claim differentiation. The Federal Circuit has further explained the practical import of the doctrine of claim differentiation at one level as a prohibition on reading limitations from dependent claims into independent claims. *Karlin Technology, Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971–72, (Fed. Cir. 1999) (“limitations stated in dependent claims are not to be read into the independent claim form which they depend.”); *see also Comark Comm’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed.Cir.1998) (“There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims. To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.”).

Under the doctrine, it would be improper to import *marking* and *dropping* limitations from certain dependent claims into their respective independent claims. For example, independent claim 1 is expressly differentiated from dependent claims 6–11 in that only those dependent claims (though not claim 1) expressly requiring *marking* packets. *See, e.g., id.*, 16:66–18:6. As another example, while claim independent claim 1 does not recite any limitations directed to *dropping* packets, claim 4 depending therefrom does. Thus, Dell’s impermissible attempt to import into each independent claim extraneous *dropping* and *marking* limitations should also be rejected as violating the doctrine of claim differentiation.

**4. “means for determining an egress node associated with each of a plurality of packets of a traffic flow received at an ingress node” (claim 12)**

<b>WSOU’s Position</b>	<b>Dell’s Position</b>
This term is subject to 35 U.S.C. § 112, ¶ 6 <b>Function:</b> determining an egress node associated with each of a plurality of	This term is subject to 35 U.S.C. § 112, ¶ 6 <b>Function:</b> determining an egress node associated with each of a plurality of packets of a traffic flow received at an ingress node.

packets of a traffic flow received at an ingress node	<b>Structure:</b> processor 210, switch 230, and one or more routing tables associated with switch 230
<b>Structure:</b> switching component of a node	

The parties agree that the above term is subject to means-plus-function construction under 35 U.S.C. § 112, ¶ 6. The parties also agree as to the relevant function. The dispute over this term is whether the corresponding structure necessarily requires each of the specifically-referenced components Dell identifies. *See, e.g., Acromed* 253 F.3d at 1382 (“a court may not import into the claim structural limitations from the written description that are unnecessary to perform the claimed function.”); *Micro Chem.*, 194 F.3d at 1258 (“The statute does not permit . . . incorporation of structure from the written description beyond that necessary to perform the claimed function.”). The specification expressly attributes this functional language to the structure of “a switching component of the ingress node.” ’133 patent, 2:62–3:3. Elsewhere, the ’133 patent confirms that at any given moment nodes 104 may generally operate as ingress nodes, intermediate nodes, and egress nodes, depending on the circumstances. *Id.*, 3:43–56. “For traffic entering the load-balancing network from networks, associated nodes 104 operate as ingress nodes.” *Id.* Thus, while the node structure itself remains the same, whether a node operates as an “ingress” node at a given moment depends on the circumstances. Accordingly, the corresponding structure necessary to perform the recited function should be construed as “switching component of a node.”

Dell errs at least in seeking to narrow claim scope to require three exemplary aspects of a particular embodiment, to the exclusion of all other disclosed embodiments. That “routing tables” are not unambiguously required for all embodiments is made explicit by the disclosure “*[i]n one embodiment*, processor 210 queries one or more routing tables associated with switch 230 for determining the egress node associated with each packet received by processor 210.” *Id.*, 5:14–17 (emphasis added). Indeed, that *non-limiting* statement is the one and only reference to “routing tables” in the entire ’133 patent. It is also significant that the statement is described as an *alternative* to another embodiment also introduced as “in one embodiment.” *Id.*, 5:11–14.

5. “means for processing the packets such that packets associated with egress nodes for which the congestion condition does not exist have a different queuing priority within the load-balancing network than packets associated with egress nodes for which the congestion condition exists”

WSOU’s Position	Dell’s Position
<p>This term is subject to 35 U.S.C. § 112, ¶ 6.</p> <p><b>Function:</b> processing the packets such that packets associated with egress nodes for which the congestion condition does not exist have a different queuing priority within the load-balancing network than packets associated with egress nodes for which the congestion condition exists.</p> <p><b>Structure:</b> processor having the claimed functionality.</p>	<p>This term is subject to 35 U.S.C. § 112, ¶ 6.</p> <p><b>Function:</b> processing the packets such that packets associated with egress nodes for which the congestion condition does not exist have a different queuing priority within the load-balancing network than packets associated with egress nodes for which the congestion condition exists.</p> <p><b>Structure:</b> processor 210 which marks the packets such that marked packets have a different probability of being dropped than unmarked packets.</p>

The parties agree that the above term is subject to means-plus-function construction under 35 U.S.C. § 112, ¶ 6 and the parties have identified the same recited functional language. The parties also at least agree least that the “means for processing . . .” is an explicit reference to a *processor*. The dispute over this term is essentially whether the corresponding *structure* should be limited in terms of *unrecited functionality* of the processor. It should not.

In *Acromed Corp. v. Sofamor Danek Group, Inc.*, 253 F.3d 1371, 1382–83 (Fed. Cir. 2001), the Circuit ruled a district court properly refused to impose a requirement to the corresponding structure of a means-plus-function limitation that the diameter of the body portion of the claimed screw be greater than the crest diameter of the threaded portion of the screw, even though that was the screw disclosed in the written description, where the diameter size was unnecessary to achieve the claimed function. Here, it also would be improper to import the extraneous marking limitation as a structural requirement where the specification discloses examples that do not necessarily require such marking. *See, e.g.*, 5:6–10 (“***In one embodiment***, the determination as to whether to modify the queuing priority of a packet is determined using an egress node congestion status associated with the egress node through which the packet is assigned to leave the load-balancing network.”); 5:33–38 (“In ***another*** such embodiment, processor 210 ***may*** process the packet in a

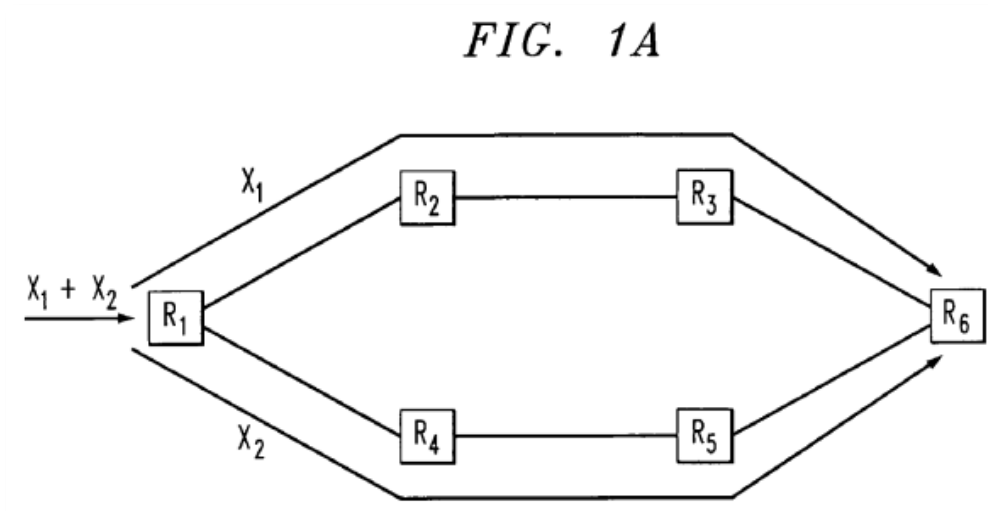
manner for modifying a queuing priority associated with the packet (e.g., marking the packet as having a particular queuing priority).”) (emphasis added). That marking in the manner set forth in Dell’s proposed construction is not necessarily required in all instances is also made clear by several dependent claims which introduce marking as an *additional* limitation not required by the respective independent claim from which they depend. *See, e.g., id.*, 16:66–18:6 (claims 6–11).

### III. U.S. Patent No. 7,636,309 (Case No. 6:20-cv-00485-ADA)

#### 1. “split ratio vector” (claims 1, 11, 16)

WSOU’s Position	Dell’s Position
“the proportion of the flow routed in a given path relative to the cumulative flows on the plurality of paths”	“the proportion of the flow routed in each path”

The ’309 patent describes and distinguishes what it refers to as “intra-flow splitting” and “flow-based splitting.” In the context of “intra-flow splitting” in particular, the ’309 patent states “a split ratio vector of a flow is defined as the proportion of the flow routed in each path.” ’309 patent, 3:48–49. It would be inappropriate, however, to adopt this statement verbatim as the definition for the “split ratio vector” term, without also considering the context in which that term is recited. Claim 1 recites, in part, “splitting by the node each of the plurality of traffic flows into at least two sub-flows” and “routing by the node the packets or bytes of the at least two sub-flows respectively on at least two paths in the network.” This claim language can be explained with reference to Fig. 1A, reproduced below.



'309 patent, Fig. 1A. The corresponding description includes the following:

In intra-flow splitting, flow  $X_1$  is split at  $R_1$  with the split ratio vector  $(q_1, 1-q_1)$ . Then,  $q_1$  fraction of the flow takes the path  $R_1$ - $R_2$ - $R_3$ - $R_6$  and the remaining takes the path  $R_1$ - $R_4$ - $R_5$ - $R_6$ . Similarly for the flow  $X_2$ , the traffic is split with the split ratio vector  $(q_2, 1-q_2)$ .

*Id.*, 4:15–19. In the illustrated embodiment, the intra-flow splitting involves at least two distinct flows split along two distinct paths  $R_1$ - $R_2$ - $R_3$ - $R_6$  and  $R_1$ - $R_4$ - $R_5$ - $R_6$ , respectively. The “top” path illustrated in Fig. 1A ( $R_1$ - $R_2$ - $R_3$ - $R_6$ ) is identified as taking “ $q_1$  fraction of the flow” and, in this example, has a split ratio vector of  $(q_1, 1-q_1)$ . The “bottom” path ( $R_1$ - $R_4$ - $R_5$ - $R_6$ ) is identified as taking  $q_2$  fraction of the flow and, in this example, has a split ratio vector of  $(q_2, 1-q_2)$ . Those respective split ratio vectors, which are represented with different variables ( $q_1$  and  $q_2$ ), are not necessarily identical to one other. In other words, it is not necessary that precisely *half* of the fraction of the flow is routed over each one of the identified paths, such that  $q_1 = q_2$ .

One problem arising from adopting Dell’s proposed construction of adopting a statement in the specification verbatim is that, in the context of claim 1, that statement could be interpreted as requiring that *each* path must route the *same* proportion of the flow. This would depart from the disclosure and the surrounding context of the claim language. That a given path will have its own respective split ratio vector is confirmed by the recitation in claim 1, “wherein the given split ratio vector is configured such that the portion of the multiple packets or bytes assigned to each of the plurality of sub-flows is based at least in part on a ratio between a mean traffic rate of a cumulative flow on the respective corresponding path and a sum of mean traffic rates of cumulative flows on the plurality of paths.”

To avoid any dispute down the road concerning the proper scope of the “split ratio term,” and in view of its informative context recited in the claim language, WSOU proposes construing this term to mean “the proportion of the flow routed in a given path relative to the cumulative flows on the plurality of paths.”

## IV. U.S. Patent No. 9,164,800 (Case No. 6:20-cv-00481-ADA)

## 1. “latency cost” (claims 1, 13)

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“communication delay between a compute node and a data node”

The term “latency cost” requires no construction, particularly in view of the informative context in which it is recited. Independent claims 1 and 13 both recite this term in the context of “wherein the assignment objective is based on *a latency cost used in obtaining a set of assignments by applying an algorithm.*”

Dell errs in seeking to restrict this term to “communication delay *between a compute node and a data node*” only, and to the exclusion of any sort of delay between other nodes that do not fit that narrow description. Dell’s proposed construction should be rejected as violating the proscription against adding limitations that are neither required by claim terms nor unambiguously required by either the specification or the prosecution history. *See, e.g., Cont’l Circuits* 915 F.3d at 796–97; *Dayco*, 258 F.3d at 1327.

Far from *unambiguously requiring* Dell’s impermissible rewrite, the intrinsic evidence expressly *refutes* it. For example, the specification expressly contemplates “communication latency between data nodes and compute nodes *or between multiple computer nodes cooperating to perform a processing task.*” ’800 patent, 1:37–41; *see also* 8:10–12 (“For example, the cloud controller 120 may determine that a data node may be processed by two compute nodes or that one compute node may process two data nodes.”). Elsewhere, the specification similarly discloses,

In view of the foregoing, a cloud controller *may*, in assigning compute nodes to data nodes, optimize the latencies between such nodes according to various objectives. In various applications, however, compute nodes *may alternatively* or additionally communicate with each other, *introducing another form of communication that may be optimized.*”

*Id.*, 11:24–29 (emphasis added). This repeated disclosure of *alternative* example sources of communication latency, according to certain preferred embodiments, confirms it would be erroneous to unduly restrict “latency cost” to but one of the multiple disclosed examples. It is

well-established that a construction which would exclude a preferred embodiment “is rarely, if ever, correct and would require highly persuasive evidentiary support.” *Eko Brands, LLC v. Adrian Rivera Maynez Enterprises, Inc.*, 946 F.3d 1367, 1373 (Fed. Cir. 2020) (citations and internal quotations omitted).

## 2. “[determining/determine] an assignment objective” (claims 1, 13)

WSOU’s Position	Dell’s Position
Plain and ordinary meaning.	“select[ing] one of a plurality of assignment objectives”

The phrases “[determining/determine] an assignment objective” recite straightforward words that require no construction here, particularly within the informative context in which they are recited. As recited in claims 1 and 13, for example, the surrounding context already specifies that “the assignment objective is based on a latency cost used in obtaining a set of assignments by applying an algorithm.” Dell effectively concedes no construction is required for the recited words because Dell proposes a construction that simply restates the recited words “assignment” and “objective” (albeit Dell rewords the latter in its plural form).

Notwithstanding Dell’s tacit concession that the recited words themselves require no construction, Dell seeks to add extraneous limitations that would risk excluding certain preferred embodiments. *Eko Brands*, 946 F.3d at 1373 (Fed. Cir. 2020) (“A claim construction that excludes the preferred embodiment is rarely, if ever, correct and would require highly persuasive evidentiary support.”) (citations and internal quotations omitted). For example, the specification includes the following relevant description:

The cloud controller 120 may then, in step 350, determine the assignment objective to be applied. For example, the cloud controller may determine that the assignment objective is to minimize the total latency or to minimize the maximum latency within a total latency limit. Such determination may be made, for example, based on a client request or a cloud operator configuration. In various embodiments, the cloud controller 120 may not provide an option to select an assignment objective. For example, the cloud controller 120 may automatically select an objective based on network conditions. As another example, the cloud controller 120 may only provide

a single objective. In such embodiments, step 350 may simply include accessing code specified for performing the assignment.

'800 patent, 8:21–34 (emphasis added). As shown by the paragraph above, not every preferred embodiment necessarily requires that the determining of an assignment objective must involve selecting one of a plurality of assignment objectives.

It is anticipated that Dell will attempt to raise an argument of prosecution history disclaimer to justify its attempt to exclude preferred embodiments and add extraneous requirements. The Federal Circuit has provided the following guidance concerning this doctrine:

The doctrine does not apply unless the disclaimer is “both clear and unmistakable to one of ordinary skill in the art.” When determining whether disclaimer applies, we consider the statements in the context of the entire prosecution. If the challenged statements are ambiguous or amenable to multiple reasonable interpretations, prosecution disclaimer is not established.

*Technology Properties Limited LLC v. Huawei Technologies Co., Ltd.*, 849 F.3d 1349, 1357–58 (Fed. Cir. 2017) (citation omitted). The facts do not sufficiently support such an exacting standard.

During prosecution, the applicant distinguished certain art, in part, with the following remarks: “[t]here is no opportunity to determine which assignment objective is to be achieved and apply that algorithm associated with the selected objective because the single approach [of the cited art] appears to simply be hard-coded into the system.” Remarks dated April 13, 2015 to a Final Office Action rejection dated Feb. 26, 2015. That the claim language was distinguished from a single approach hard-coded in the system does not unambiguously disclaim all of the *several* disclosed embodiments save the one which enables a client or operator to select one of a plurality of assignment objectives.

Dell’s construction should also be rejected as departing from the claim language and its informative surrounding context by introducing the extraneous requirement “one of a plurality of assignment objectives.” The claim language does not recite “objectives” *in the plural*, but rather recites “objective” in the singular and limits that singular objective in terms of it being “based on a latency cost used in obtaining a set of assignments by applying an algorithm.” In other words,



the claim language specifies that *only* the determined assignment objective (in the singular) need be based on a latency cost used in obtaining a set of assignments by applying an algorithm. It is unclear whether Dell's departure from the claim language would newly require that *each one* of the *unrecited* "plurality of assignment objectives" would necessarily have to satisfy this "based on" requirement or, instead, only the determined one of the unrecited "plurality" would need to do so. Nothing in the specification itself nor in the prosecution history (including the remarks summarized above) unambiguously requires such a narrowing of claim scope in terms of a *plurality* needing to be "based on . . ." as claimed.

For the foregoing reasons, the patentee's word choice should control; and, as Dell tacitly acknowledged, there is no need here to define those words *themselves*.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

A true and correct copy of the foregoing instrument was served or delivered electronically via the U.S. District Court [LIVE]- Document Filing System to all counsel of record on February 17, 2021.

/s/ James L. Etheridge  
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